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ABSTRACT

This survey was undertaken to build upon and validate understanding of teacher satisfaction and dissatisfaction, orientation to teaching, teachers' values, and teacher health. The purpose of this endeavor was also to develop an instrument suitable for identifying and quantifying the sources and relative strength of factors contributing to teacher satisfaction and dissatisfaction. The survey was a machine readable self-report instrument consisting mostly of precoded items with some open-ended questions. A total of 2,336 surveys were distributed to 71 schools in Western Sydney (Australia) with a 38 percent response rate. As predicted from a previous study, teachers are satisfied by matters intrinsic to the role of teaching, such as student achievement, positive relationships with the students, self-growth, and mastery of professional skills. They are dissatisfied with a second set of factors that are extrinsic to the task of teaching and outside the control of teachers and schools (e.g., the rapid pace and nature of educational change, increased expectations being placed on schools, the community's poor opinion of teachers, and lack of support for implementation of change policies). A third band of factors revealed by the study had not been identified by previous research. Falling between intrinsic rewards of teaching and extrinsic sources of teacher dissatisfaction are school-based factors such as school leadership, climate, and decision making, school reputation, and school infrastructure. It is these factors where most variation occurred from school to school, and where most potential for change can be found. (Contains 7 tables and 20 references.) (LH)

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MODELLING TEACHER SATISFACTION: FINDINGS FROM 892 TEACHING STAFF AT 71 SCHOOLS

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MODELLING TEACHER SATISFACTION: FINDINGS FROM 892 TEACHING STAFF AT 71 SCHOOLS

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ABSTRACT

This paper presents the central findings of a study into teacher satisfaction, motivation and health involving a survey of 892 teachers and school executive in 71 public primary, secondary and specific purposes schools in Western Sydney, Australia.

Factor analysis of survey items was carried out to develop an eight factor model of teacher satisfaction. The eight factors were named: School Leadership, Climate, Decision-Making; Merit Promotion and Local Hiring; School Infrastructure; School Reputation; Status and Image of Teachers; Student Achievement; Workload and the Impact of Change; and Professional Self-growth.

Scores on the scales fell into three bands: 'core business of teaching' factors (student achievement; professional self-growth); school level factors (school leadership, climate, decision-making; school infrastructure; school reputation); and system level/societal factors (workload and impact of change; status and image of teachers; merit promotion).

Teachers were most satisfied with 'core business' aspects and least satisfied with systems level/societal factors, whilst school level factors showed the most variation, reflecting the influence of teachers' specific and varying within-school experiences. Leadership, communication and decision making styles were found to be important contributing factors to satisfaction with school based aspects of respondents' roles.

A key finding of the study was the need to rethink and redefine teachers' and school administrators' roles to enable them to concentrate on the core aspects of teaching and learning which they find so uniformly satisfying and for others to assume responsibility for the more extraneous and dissatisfying responsibilities which schools and teachers and been forced to pick up in recent times.

BACKGROUND TO THE STUDY UNDER DISCUSSION

One theme above all has resonated through education internationally since the 1960s and that is change.

Change is, of course, a natural part of life and there is no reason why educational employees, institutions or systems should be immune to or protected from change. However what is perhaps problematic about change in education is the often conflicting motives and pressures for change and the various outcomes of attempts

to facilitate change, outcomes which are not always positive for students and teachers[1].

In many cases, what has been advocated and even mandated at one time has been reversed later, two examples being school based curriculum development versus central prescription and control over curricula, and school self-management versus centralised administrative control of educational systems. There has also been on-going tension between giving attention to the 'basics', and increased expectations in the area of the 'social' aspects of school curricula and responsibilities.

Changing education must inevitably mean changing teachers, or at least more pressure being placed upon teachers to change both themselves and their practices. Rather than achieving 'educational ends', these changes have in many cases been promulgated in order to facilitate both 'economic regeneration' and the 'rebuilding of national cultures and identities' (Hargreaves, 1994: 5), such attempts occurring within a context of greater criticism of education and tighter economic constraints. Hargreaves has noted the 'twin realities of change' as being 'ideological compliance' and 'financial self-reliance' (1994: 5). A third reality, in many cases, is undoubtedly greater workloads to meet the demands of change.

There is little wonder that as a result of this context of change, researchers, educational systems and teachers themselves have been concerned with how teachers and school leaders are reacting to and coping with what are largely externally imposed forces.

When considering the impacts of educational change and teaching on teachers, there is encountered a vast, often vaguely defined and overlapping literature on such matters as teacher stress, teacher burnout, teacher morale, teacher satisfaction and teacher motivation; a literature which has expanded commensurate with educational innovation and change in the period since the 1960s. Frequently, these matters are also the subject of debate and discussion in the public arena, the media, in election campaigns, and in teachers' salary disputes.

Thompson, in a major meta analysis of published research (1995: 252), considered just one of these aspects, job satisfaction, and noted that despite an outpouring of research and commentary over a quarter of a century, 'no empirical synthesis of individual studies of job satisfaction has been conducted' and that there is still clearly much to be learned about the area.

THE PRESENT STUDY: THE TEACHER 2000 PROJECT

A paper (Dinham & Scott, 1996a), presented to AERA in 1996, outlined how the study arose, as well as some preliminary findings from the first phase of the 'Teacher 2000 Project'.

Briefly, a previous interview study involving resigned teachers (Dinham, 1992), revealed that the factors contributing to teacher satisfaction were largely discrete from those contributing to teacher dissatisfaction, and that when teachers made the decision to resign, the sources and strength of their satisfiers were basically unchanged, while it was the increase in the strength of their dissatisfiers that had 'tipped the balance' and precipitated the 'resignation decision'.

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[1] In this paper, the term 'teacher' is used generically to encompass classroom teachers, school executive (faculty heads, deputy principals, principals), and specialist support staff (librarians, school counsellors).

Overwhelmingly, 'satisfiers' were phenomena and rewards 'intrinsic' to teaching, such as pupil achievement, teacher achievement, changing pupil attitudes and behaviours in a positive way, recognition from others, mastery and self-growth, and positive relationships. Satisfiers were largely universal across sex, teaching experience, position held, location, and type of school.

'Dissatisfiers', on the other hand, were phenomena more 'extrinsic' to the teaching of students and included impacts of changes to educational policies and procedures, greater expectations on schools to deal with and solve social problems, the declining status of teachers in society, poor supervision, being treated impersonally by employers, new responsibilities for schools and increased administrative workloads. In short, dissatisfiers were phenomena perceived as detracting from or militating against the 'core business' of teaching students.

It was found that the relative strength of respondents' dissatisfiers had increased over time due to social and educational change, and that 'control' was a key issue, in that in many cases, imposed changes impacting upon schools had to be implemented with little room for discretion on the part of principals and teachers and with little practical help from above, with resultant dissatisfaction. There was a direct causal link between increased dissatisfaction and increased stress.

Such a 'two factor' model of teacher satisfaction is broadly consistent with earlier findings of Herzberg, Mausner and Snyderman (1959), Sergiovanni (1967), Schmidt (1976), Holdaway (1978), Kaufman (1984), and others, although what is perhaps novel in the resignation study findings is the relative 'quarantining' or insulation of teacher satisfiers and satisfaction strength from the effects of change, and the impact of change on dissatisfiers, which are more dynamic both in form and strength and which were found to respond to changes occurring within education systems and society generally. In short, resigned teachers maintained that they still found the core business of teaching to be highly satisfying.

The Teacher 2000 Project

The Teacher 2000 Project arose because of a desire to test and extend the model and key findings of the resignation and persistence research and other follow up research (Dinham, 1995) through a survey of a relatively large number of teachers and school executive and to, in turn, better inform decision making and policy formation in the areas of teacher satisfaction, motivation and health.

The Teacher 2000 Project sought to achieve the following aims:

1. To build upon and validate understandings of teacher satisfaction, teacher dissatisfaction, orientation to teaching, teachers' values and teacher health revealed by prior research.

2. To develop an instrument suitable for identifying and quantifying the sources and relative strength of factors contributing to teacher satisfaction and dissatisfaction through completion of a case study in Western Sydney.

3. To refine the instrument and to apply it more widely in the future, both inside and outside Australia.

4. To obtain benchmark information on matters relating to teacher welfare which can be used for tracking, explanatory, planning and predictive purposes at school, system, and other levels.

5. Where established instruments are used, to compare the findings of the study with previous research.

METHOD

Instrument

As noted, following earlier research, it was decided to develop a survey which could be used with a large group of teachers and school executive to test and extend the findings of this research and the literature.

A machine readable self-report instrument was developed consisting of mostly pre-coded items with some open-ended questions. In the pilot step, 305 surveys were distributed to 4 primary schools and 3 secondary schools, with 109 completed surveys returned.

Data from completed surveys were computer scanned and analysed using SPSS, while open-ended responses were subject to content analysis using NUDIST (QSR, 1994).

Following analysis of the pilot data only minor editorial changes to the wording of the survey were made. The final instrument contained 7 sections:

1. Demographic items - age, years of service, years at present school, sex, current position, qualifications, country of birth and first language.
2. Orientation to teaching - participants were asked to rate as true or false seven reasons for their entering teaching and two items about their preparedness to teach.
3. Satisfaction/dissatisfaction with teaching - participants used a seven point scale (1=Highly Dissatisfied - 7=Highly Satisfied) to rate their satisfaction with 75 aspects of teaching/teachers' work. Items were derived from interviews with teachers conducted as a part of Dinham's doctoral research (1992) and follow up research (1995). It was intended to also use responses on the 75 items to explore the underlying structure of satisfaction/dissatisfaction and, based on these analyses, to develop scales from the items which would allow for more parsimonious measures of satisfaction/dissatisfaction. Participants also used seven point scales to rate their current level of satisfaction with teaching (1=Highly Dissatisfied - 7=Highly Satisfied) and the change in their level of satisfaction since they began teaching (1=Now More Highly Dissatisfied - 7=Now More Highly Satisfied). Two open-ended questions invited respondents to list other factors which contribute to their satisfaction/dissatisfaction with teaching.
4. Time devoted to teaching tasks - respondents were asked to indicate via subdivisions on a pie chart the proportion of their 'professional life' devoted to activities such as preparation for teaching, meetings, face to face teaching, and so on.
5. The 40 item Commitments Scale (Novacek & Lazarus, 1990) - was used as a measure of motivation/commitment. Novacek and Lazarus' instrument yields scale scores for six components of commitment - Affiliation, Power and Achievement, Stress Avoidance, Sensation Seeking, Personal Growth, and Altruism.
6. The 12 item form of the General Health Questionnaire (GHQ) - the GHQ is a widely used and reliable instrument for the assessment of non-psychotic mental distress, or 'stress'.
7. Finally, an open-ended question gave respondents the opportunity to make any other comments about teaching.

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Participants

Sampling

The Metropolitan West Region was one of the largest of the 10 regions in the New South Wales Department of School Education, which in total, employs approximately 50,000 teachers (although the regional structure was in the process of being removed from the DSE administrative hierarchy at the time the study took place).

Western Sydney was chosen both because of convenience of access and because of its heterogeneity, ranging from small rural primary schools to large urban high schools, and from schools with large proportions of students with languages other than English to schools with negligible numbers of students with this background. Economically, the region covers a wide spectrum, from areas of high and persistent adult and youth unemployment and poverty, to pockets of affluence. In the media, however, the region is usually portrayed as being 'disadvantaged' in comparison with the rest of Sydney and a 'difficult' area in which to teach.

The invitation for participation in the project was made to over one third of all government schools in the Metropolitan West Region, ensuring in the selection process a representative sample of schools, given the heterogeneity of the region noted above. Data were collected in three steps, a pilot during which the instrument was tested and a second main data collection step, both of which comprised the first phase of the project (Dinham & Scott, 1996a).

In the second phase of the project reported here, additional responses to the questionnaire were obtained from schools in Western Sydney and fuller analysis of the available data took place.

Overall, 47 of the region's 185 primary schools; 19 of the 54 secondary schools; and 5 of the region's 16 Schools for Specific Purposes (SSP) (i.e., schools for the hearing impaired, blind, etc.), took part in the study. Thus, of the 255 government/public schools in the [then] Metropolitan West Region, 71 participated in the study.

Response Rate

As reported above, late in 1995, 305 surveys were distributed as a pilot study to 4 primary schools and 3 secondary schools, with 109 completed surveys returned. In total, 2,336 surveys were distributed at 71 schools, with 892 surveys (38%) returned and analysed, although additional surveys (>50) continued to arrive after the final computer scanning and are not included in these response figures or in the analysis.

The response rate of 38%, while somewhat disappointing, can be attributed to a number of factors. It also varied greatly from school to school, as will be seen below.

Firstly, it is apparent from talking with teachers and principals that many schools have become 'flooded' with requests for research, with complaints that participation in research projects is time consuming and in many cases, time wasting, in that there is no feedback of findings to schools. Anecdotal evidence suggests that a response rate of 30-40% is the norm in schools under such circumstances today (a number of respondents wrote that the survey itself was another aspect of their overwork). It is for this reason that every participating school in the present project received a breakdown of its own findings, as well as the overall findings of the project (Dinham & Scott, 1996b).

Secondly, it was apparent from variation in the response rates for individual schools and anecdotal evidence that the process of distribution of surveys within some schools was *ad hoc*, although this is not thought be a threat to the validity of the sample, given the overall demographic profile of those surveyed, which was very close to that of the region as a whole, and indeed similar to the remainder of the state.

Thirdly, the survey was a lengthy one, with 14 pages of responses required, and this no doubt deterred some potential respondents.

Fourthly, the number of surveys issued to schools exceeded full time staffing levels as it was intended that casual (emergency) teachers be included, and so principals nominated a higher number of surveys to be provided on the chance that casual teachers would be in the school at the time of the survey and would take part. As the surveys were provided in schools over several weeks, it was also hoped that teachers who might have been absent and replaced by casual teachers would also take part on their return. In most schools, additional surveys were provided at a rate of 10-15% about permanent staff numbers, according to principals' wishes.

Overall, response rates in high schools were lower than primary and SSP schools, possibly reflecting both the larger size of high schools and their fragmentation into faculties and departments, a phenomenon which can militate against effective communication and dissemination of information.

Sample Description

As mentioned above, of the 2,336 surveys distributed to schools, there were 892 respondents (38%), 65% of whom were women and 35% men. For comparative purposes, in 1989 the Australian teaching force was 61% female and 39% male (Logan, Dempster, Berkeley, Chant, Howell, & Warry, 1990: 1).

The mean age of respondents was 40.3 years (women = 39.5, men = 41.7), with a range of 20 to 66 (Table 1). These means, while lower than the NSW DSE overall, are close to the means for then Metropolitan West Region which has tended to be younger in profile than more favoured regions of the state such as the North Coast and South Coast.

Of female respondents, 56% were primary trained and 44% high school trained, while 32% of men were primary trained and 68% high school trained. . Overall, approximately 52% (n=462) were secondary trained. Mean length of service as a teacher was 14.5 years (range 0 to 37), and mean length of time in current school was 5.5 years (range 0 to 31).

Including the newly created position of Advanced Skills Teacher, 44% of the women were in promotions positions, and 55% of the men (48% of the total sample).

Table 1: Sample Description, by sex

	Women n=575	Men n=307	Total Sample n=892#
Age	39.5(9.4)	41.7 (9.3)	40.3(9.1
Length of service	13.0 (9.3)	17.3 (10.7)	14.5 (10.0)
Time in school	5.0 (4.1)	6.4 (4.6)	5.5 (4.3)
% primary trained	56	32	48
% high sch. trained	44	68	52
% promoted*	44	55	48

There were 10 cases where sex was not shown

* NSW DSE schools have the following promotions positions:
High Schools: Principal, Deputy Principal/Leading Teacher, Head Teacher, Advanced Skills Teacher, Classroom Teacher (non-promoted).
Primary Schools: Principal, Deputy Principal, Assistant Principal, Executive Teacher, Advanced Skills Teacher (AST), Classroom Teacher (non-promoted).

Of the 892 respondents, the great majority (84%, n=743), were born in Australia. For comparative purposes, The Australian College of Education (ACE), in a research study on the profile of the Australian teaching service, had earlier found that 83% of Australian teachers were born in Australia (Logan, et. al., 1990: 5).

Of the respondents to the Teacher 2000 study, only 9% (n=76) had a first language other than English, while the ACE study found 12% of Australian teachers had this background (Logan, et. al., 1990: 5).

Table 2 below shows the highest qualification held by those surveyed. Once again, these findings are similar to those of the region and for Australia as a whole (Baumgart, 1995; Logan, et. al., 1990: 19-20; NSW DSE, 1994).

Table 2: Highest Qualification Held by Respondents

Qualification	Number	(%)
2 yr Cert or Diploma	46	(5%)
3 yr Diploma	166	(19%)
4 yr BEd or 3 yr Degree + Diploma	366	(41%)
4 yr Degree + Diploma or 4 yr qual + Diploma	227	(25%)
Masters Degree	86	(10%)
Doctorate	0	(0%)
Missing Cases	1	

Table 3 below shows present position held by respondents.

Table 3: Present Position Held

Position Held	Number	(%)
Principal (Pri/Sec)	48	(5%)
Deputy Principal (Pri/Sec)/Leading Teacher (Sec)	26	(3%)
Assistant Principal(Pri)/Head Teacher (Sec)	110	(12%)
Executive Teacher (Pri)	40	(4%)
Advanced Skills Teacher (Pri/Sec)	170	(19%)
Classroom Teacher (Pri/Sec)	345	(39%)
Casual Teacher (Pri/Sec)	81	(9%)
Other (Pri/Sec)	62	(7%)
Missing Cases	10	(1%)

RESULTS

Satisfaction And Dissatisfaction

Sources of Satisfaction

On the seven point scale to measure respondents' reaction to the 75 satisfaction/dissatisfaction items, 1 signifies that an issue is highly dissatisfying, 2 and 3 indicate some level of dissatisfaction, while 4 indicates that that an issue is neither satisfying nor dissatisfying. Ratings of 5 and 6 indicate some satisfaction, while 7 indicates that an issue is highly satisfying. The 5, 6 and 7 categories were collapsed to give one 'satisfied' category. Using this collapsed category, the 75 items, in descending order of satisfaction, are shown in Appendix 1.

Overall Self-Reported Current and Changed Satisfaction/Dissatisfaction

Self-Ratings for Overall Satisfaction With Teaching

On a seven point scale, respondents were asked to give an overall rating for their current level of satisfaction with teaching. Using collapsed categories for satisfaction/dissatisfaction from the seven point scale, 50% of respondents rated themselves as satisfied, including 4% who rated themselves as highly satisfied, while 42% rated themselves as dissatisfied, including 7% who rated themselves as highly dissatisfied.

Table 4: Self-Ratings for Satisfaction

%	Rating
4	Highly Satisfied
46	Satisfied
8	Neutral
35	Dissatisfied
7	Highly Dissatisfied

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Similarly, respondents were asked to think about how their initial satisfaction/ dissatisfaction with teaching had changed. In total, 29% said they were now more satisfied, including 5% who said they were now more highly satisfied, while 59% were now more dissatisfied, including 17% who rated themselves as now being more highly dissatisfied. Twelve per cent had experienced no change in their original level of satisfaction/dissatisfaction with teaching.

Table 5: Self-Ratings for Changed Satisfaction

%	Rating
5	Now More Highly Satisfied
24	Now More Satisfied
12	No Change
42	Now More Dissatisfied
17	Now More Highly Dissatisfied

Satisfaction Scale Construction

A data reduction was performed on the 75 satisfaction items with the aim of exploring the structure of satisfaction/dissatisfaction and of developing a series of scales to measure these. Exploratory factor analysis of the 75 satisfaction items using LISREL 8 indicated that the final model of teacher satisfaction should contain between 7 and 14 factors. Confirmatory factor analyses indicated that an eight factor model gave the best fit (Root Mean Sq Error of Approximation = 0.047, GFI = .88, AGFI = 0.86).

The eight factors were named (highest loading item with factor loadings included in brackets):

1. *School Leadership, Climate, Decision-Making* (item with the highest loading 'Leadership in your school', .83);
2. *Merit Promotion and Local Hiring* ('The way promotion on merit has occurred in schools', .86);
3. *School Infrastructure* ('Your school's material resources', .66);
4. *School Reputation* ('Reputation of your school in the community', .76);
5. *Status and Image of Teachers* ('Your current salary', .78);
6. *Student Achievement* ('Your capacity to change students' attitudes', .73);
7. *Workload and the Impact of Change* ('Your current workload overall', .69);
8. *Professional Self-growth* ('The degree to which you have achieved your professional goals', .77).

Scales calculated from the items loading on the 8 factors were found to have good reliability and correlated significantly with both self-ratings of global satisfaction with teaching and with change in satisfaction with teaching since commencement of employment.

Results For The Eight Satisfaction Scales

Overall Results for the Eight Satisfaction Scales

Table 6 below shows mean satisfaction scores for the total sample for each of the satisfaction scales in descending order of satisfaction. Scores were calculated as item averages so that a mean of >4-7 indicates some level of satisfaction, while scores of 1-<4 indicate some degree of dissatisfaction. A mean of 4 is considered neutral.

Table 6: Mean Scores on the Eight Satisfaction Scales

Scale	Satisfaction Scores Total Sample
Self-Growth	5.32
Student Achievement	5.03
School Reputation	4.36
School Leadership	4.27
School Infrastructure	3.68
Workload, Change	3.07
Merit Promotion, Local Hiring	3.10
Status, Image of Teachers	2.18

The Relationship Between Scores on the Satisfaction Scales and Sex, Type of School and Promotions Position Held

Exploratory analyses revealed differences between men and women, primary and high school teachers, and holders of different promotions positions on several of the eight satisfaction scales. Given the strong association between being male or female and both the type of school in which one teaches (high school or primary school) and promotions position held, a series of three way ANOVAs were performed to control for the effects of all three variables. Results revealed a significant difference between men and women on the scale Merit Promotion, Local Hiring, and on the scale Student Achievement, whilst a significant interaction was found between sex and type of school on Professional Self-Growth. An interaction between sex and type of school means that statements about whether primary or high school teachers are more satisfied cannot be made unless it is also known whether the person is a man or a woman.

Significant relationships were also found between promotion position and scores on the eight satisfaction scales. However, these relationships were complex and interactions were found between this variable and sex, and type of school (high school/primary school). This means that in several cases, it is not possible to predict the satisfaction level of a person holding a particular promotion position without also knowing in what type of school (primary/high school) the person teaches, and/or the person's sex.

School Leadership, Climate, Decision Making

On the Leadership, Climate, Decision Making scale, an interaction was found between type of school and promotion position ($F_{7,804} = 2.37$, $p = .021$) and thus, it is not possible to predict level of satisfaction of holders of various promotions

positions unless type of school in which they teach is also known. However, overall, principals (mean = 5.45) and deputies/leading teachers (5.06) were, on average, more satisfied with school leadership than were holders of other positions. Primary AST's were found to be more satisfied than their high school equivalents (PSAST's = 4.08, HSAST's = 3.81). Classroom teachers were more satisfied than AST's if they were primary school teachers, but less satisfied if they were high school teachers (PST = 4.32, HST = 3.71).

Merit Promotion, Local Hiring

An interaction was found between promotion position and type of school ($F_{7,804}$ = 2.36, p = .021) on the Merit Promotion scale. This was accounted for by a difference between primary assistant principals and secondary head teachers which reversed the result found for all other promotion positions - primary AP's were less dissatisfied than their high school counterparts (PSAP's = 2.99, HSHT's = 2.68). In all other cases high school staff were less dissatisfied than primary school personnel, thus, high school AST's were less dissatisfied than their primary school equivalents (PSAST's = 2.45, HSAST's = 2.75). However, on average, school principals (PSP's = 3.39, HSP's = 4.72) and deputies/LT's (PSDP's = 2.88, HSDP's/LT's = 3.37) and class room teachers (PST = 3.07, HST = 3.26) were less dissatisfied than AST's.

School Infrastructure

On the School Infrastructure scale, scores ranged between somewhat dissatisfied and somewhat satisfied. Only the scores of school principals (mean = 4.41) and deputies/leading teachers (4.33) fell into the satisfied range, whilst primary assistant principals/secondary head teachers (3.44), AST's (3.48), and primary executive teachers (3.50) were most dissatisfied ($F_{7,803}$ = 6.0, p = .000).

School Reputation

There was a significant interaction between promotion position held and type of school ($F_{7,803}$ = 3.17, p = .003) on the School Reputation scale. This interaction was accounted for by more satisfaction on the part of the group comprising high school counsellors, librarians and the like, compared to their primary school counterparts (PS = 4.29, HS = 4.73). This result reversed the trend on this scale for primary school personnel to be more satisfied than high school staff. Thus, primary AST's were more satisfied than were high school AST's (PSAST's = 4.65, HSAST's = 4.01). However, principals (PSP = 5.22, HSP = 4.82), deputies/leading teachers (PSDP = 5.19, HSDP/LT = 4.51), and classroom teachers (PST = 4.60, HST = 3.87) were all more satisfied than AST's.

Status and Image of Teachers

A significant interaction was found between promotion position and sex on the Status and Image of Teachers scale ($F_{1,803}$ = 3.51, p = .001). Female AST's were less dissatisfied than males (women = 2.10, men = 1.74) as was also the case for female and male principals (women = 2.91, men = 2.33) and deputies/leading teachers (women = 2.24, men = 2.06). However, male class room teachers were less dissatisfied than were females (women = 2.20, men = 2.33).

Student Achievement

A significant effect was found for promotion position (F7,804 = 5.43, p = .000) on the Student Achievement scale. AST's (4.93) and classroom teachers (4.85) were the least satisfied, whilst principals (5.64), deputies/leading teachers (5.66), and primary executive teachers (5.47) were most satisfied. Primary assistant principals/secondary head teachers (5.08) were in the mid range.

Sex was also a significant predictor of satisfaction on this scale (F1,804 = 10.05, p = .002). Women (mean = 5.26) were significantly more satisfied than were men (4.81).

Type of school also significantly predicted satisfaction on this scale (F1,804 = 45.65, p =. 000) as primary staff overall (5.26) were more satisfied than were high school staff (4.81).

Workload, Impact of Change

A significant effect was found for promotion position held on the Workload, Impact of Change scale. AST's (2.76) and assistant principals/head teachers (2.73) were the most dissatisfied (F7,801 = 7.41, p = .000). Casual teachers (mean = 3.55) were the least dissatisfied, whilst principals (3.23) and deputies/leading teachers (3.25) were also among the less dissatisfied.

Professional Self-Growth

A significant effect was found for promotion position held on the Professional Self-Growth scale (F7,804 = 2.19, p = .03). Principals (mean = 5.67), deputies/LT's (5.56) and primary executive teachers (5.50) were more satisfied than other groups, with classroom (5.20) and casual (5.23) teachers the least satisfied. AST's, with a mean of 5.30, scored nearer the second group than the executive position holders.

A significant interaction was found between sex and type of school (F1,804 = 8.94, p = .002) with female primary staff overall (5.45) being significantly more satisfied than their male equivalents (5.05), whilst secondary male and female staff (5.28, 5.29) did not significantly differ.

Time in Service, Time in Current School, and Satisfaction

To investigate the relationship between years of service as a teacher, years in current school, and satisfaction on each of the eight scales, a series of multiple regressions were conducted. In each case, years of service as a teacher and years in current school were entered as predictor variables. A number of significant relationships were found between both years of service and time in current school and the eight scales. However, in several cases the direction of the relationship between satisfaction and time in the teaching service was the reverse of that found between satisfaction and time in current school. Table 7 contains the Beta coefficients, T values and the significance of the T values. The Beta coefficients give a measure of the relationship between the variables, i.e., the larger the coefficient the stronger the relationship. Negative coefficients signal a negative correlation between the variables, i.e., as scores on one variable increase, scores on the other decrease.

Time in the teaching service was found to be significantly, positively related to satisfaction on the following scales - School Leadership (p = .0000), School Infrastructure (p = .03), School Reputation (p = .0002), Student Achievement (p =

.0000) and Self-Growth (p = .0002). Time in the teaching service was significantly negatively related to one scale - Merit Promotion (p = .0000).

In comparison, time in current school was negatively related to all eight satisfaction scales and significantly so in seven cases - School Leadership (p = .0000). Merit Promotion (p = .0000), School Infrastructure (p = .0004), School Reputation (p = .021), Student Achievement (p = .0005), Workload, Change (p = .003) and Self-Growth (p = .006).

Table 7: Relationship Between the Eight Satisfaction Scales and Time in the Teaching Service and in Current School.

Scale	Time in Teaching			Time in School		
	Beta	T	Sig T	Beta	T	Sig T
School Leadership	.17	4.69	.0000	-.22	-5.88	.0000
Merit Promotion	-.15	-4.16	.0000	-.17	-4.77	.0000
School Infrastructure	.08	2.16	.03	-.13	-3.56	.0004
School Reputation	.14	3.71	.0002	-.09	-2.31	.021
Teacher Status	-.05	-1.31	.19	-.01	-0.33	.74
Student Achievement	.16	4.24	.0000	-.13	-3.49	.0005
Workload, Change	-.07	-1.82	.07	-.11	-2.98	.003
Self-Growth	.14	3.68	.0002	-.10	-2.75	.006

Commitments and General Health Questionnaire Results

Interactions between scores on the satisfaction scales and scores on the Commitments scale and the GHQ were also explored and are taken up in the full report on the study (Dinham and Scott, 1996b).

DISCUSSION

Introduction: Confirmation Of 'Two-Factor' Theories?: A Third Factor Identified

Percentages of respondents who rated themselves satisfied/dissatisfied on the 75 satisfaction items are shown in Appendix 1. Overall, as predicted from the previous study (Dinham, 1992), it was found that teachers and those holding promotions positions in schools are most satisfied by matters intrinsic to the role of teaching. Student achievement, helping students to modify their attitudes and behaviour, positive relationships with students and others, self-growth, mastery of professional skills, and feeling part of a collegial, supportive environment are powerful satisfiers. This finding was consistent with the results of the Commitments scale, which revealed that teachers' strongest commitments are to affiliation, altruism and personal growth values.

On the other hand, also as predicted, the major sources of teacher and executive dissatisfaction were matters more extrinsic to the task of teaching children and working with other staff. These dissatisfiers are largely out of the control of teachers and schools, and found within the wider domain of society, the state government, and the employer, the NSW DSE.

Additionally, the rapid pace and nature of educational change and increased expectations being placed on schools were found to have contributed to the most strongly felt dissatisfiers, which included the community's apparent poor opinion of teachers and their 'easy' working conditions, the apparent negative image of teachers portrayed in the media, the rapid pace of change, the perceived low level of support provided by the DSE to implement changed policies, procedures and curricula, the lack of support services for teachers, and changes to promotion procedures which many found problematic.

As predicted, the major dissatisfiers were those seen to detract from the facilitation of student achievement and teacher effectiveness, and thus, the 'two factor' theory of teacher satisfaction discussed earlier - whereby the factors giving rise to teacher satisfaction and teacher dissatisfaction are basically discrete - was confirmed.

However, there was a third broad band of factors revealed by the study which previous research had not identified, this third or middle band being comprised of largely school based factors. Falling between the universally perceived intrinsic rewards of teaching such as self-growth and pupil achievement (most satisfying), and the universal extrinsic hindrances to teacher satisfaction and effectiveness such as educational change, the status of teachers and increased administrative workloads (most dissatisfying), are school based factors such as school leadership, climate and decision-making, school reputation, and school infrastructure, and it was these factors where most variation occurred from school to school and where there is thus greatest potential for change within schools.

This 'three factor' theory of teacher satisfaction is supported by the results of the more complex analyses leading to the development of the eight satisfaction scales, where, as Table 6 indicates, those surveyed were most satisfied with 'Self-Growth' and 'Student Achievement', most dissatisfied with 'Status and Image of Teachers', 'Workload, Impact of Change' and 'Merit Promotion, Local Hiring', and more ambivalent about the school based categories of 'School Infrastructure', 'School Leadership', and 'School Reputation'.

Thus, the results for the overall ratings for the 75 satisfaction items, the Commitments scale results, and the eight satisfaction scale results, all strongly suggest that teachers are most satisfied with the intrinsic rewards of their own self-growth and facilitating student achievement, somewhat ambivalent about school based factors which, in part, are a product of the leadership and decision-making processes and styles existing in their particular schools and the school's relationship with its local community, and most dissatisfied with the largely extrinsic societal and departmentally based factors such as the status and image of teachers and imposed educational change.

The Importance of Control at the Three Levels

A key element in the above 'three factor theory' is the notion of 'control'. As noted by Otto (1986) and others (see Johnson, Stewart, Hall, Fredlund & Theorell, 1996, for a large, recent study), control is an important issue in worker stress and health. All things being equal, matters over which persons perceive they have less control tend to be more dissatisfying and stressful. Obviously, those in school have little control over extrinsic matters such as the image and status of teachers and educational change. They have a degree of control over school based matters such as leadership and decision making, while teachers have greatest control over their own teaching and professional growth.

CONCLUDING REMARKS

The study has shown that teachers and school executive want to perform what they perceive to be the central part of their role - the facilitation of pupil achievement - something they find highly satisfying.

However, it is also apparent that school teaching staff are increasingly feeling inadequate in the face of the rising expectations and greater responsibilities being placed upon them. Commensurate with this situation is the perception that the general community does not value or appreciate - in both senses of the word - what teachers and schools do.

To some extent, teachers have been handed an impossible task, being expected to be the miracle workers of modern society, an unrealistic expectation which ultimately results in guilt and strain when teachers and schools cannot deliver all that is demanded of them.

It seems imperative that there be a reassessment and redefinition of teachers' work and school responsibility, not the least because of what appears to be a looming teacher shortage in many countries (see Dinham, 1996). Others within the community must reassume responsibility for some of the expectations currently being shifted to schools and teachers.

Peters and Waterman, in their landmark book *In Search of Excellence: Lessons from America's Best-Run Companies*, noted in 1982 how firms needed to 'get back to basics' and to 'stick to the knitting' of what they know and do best. Over a decade later, this also seems timely advice for teachers, schools and educational systems.

This is not to say that the education 'clock' can be turned back to some idyllic point in the past. Rather, it will require new forms of partnership between all sectors of the community with an interest in the education of young people for tomorrow's world. Teachers and schools cannot and should not attempt this task alone.

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APPENDIX

Appendix 1: Respondents' Satisfaction With Aspects of Their Role

% Finding the Item Satisfying to Some Degree	Item
	How Satisfying do you find ... ?
98%	It when your students achieve success in some way?
98%	It when you change pupil behaviour in a positive way?
98%	It when you change pupil attitudes in a positive way?
90%	Working with higher ability students?
87%	Assisting other teachers?
85%	Your capacity to influence student achievement?
85%	Your degree of development/ acquisition of professional skills since you began teaching?
84%	Your degree of mastery of teaching content since you began teaching?
84%	Your dealings with students?
80%	Your capacity to change pupil behaviour?
78%	Successfully organising teaching activities?
76%	Your capacity to change pupil attitudes?
74%	Your dealings with teachers in your school?
71%	The 'official' working hours and holidays in teaching?
71%	The degree to which you have achieved your professional goals?
70%	Your capacity to contribute to whole school progress?
63%	Your dealings with parents?
62%	The quality of leadership in your school?
62%	The degree of feeling of belonging/collegiality/teamwork in your school?
61%	Working with lower ability students?
60%	Your dealings with your school's executive?
58%	Your status/reputation in your school?
58%	The opportunities to socialise with other staff in and out of school?
57%	Your involvement in extra-curricular activities?
57%	Pupil behaviour generally in your school?
55%	The concept of student involvement in school decision making?
54%	Support structures for student welfare in your school?
54%	Formal communication methods in your school?
53%	The opportunities you have for exercising leadership in your school?
53%	Pupil attitudes generally in your school?
52%	The opportunity for your involvement in school decision making?
52%	The amount of time and effort you put into in extra-curricular activities?
50%	Working with students with home/welfare problems?

Appendix 1 (Continued)

% Finding the Item Satisfying to Some Degree - Item	
How Satisfying do you find ... ?	
49%	The reputation of your school in the community?
48%	Your dealings with community members?
47%	The concept of community involvement in schools?
47%	The amount of recognition you receive for your efforts from people in your school?
46%	The quality of supervision received by staff in your school ?
46%	The inservice courses that you have undertaken/been involved in?
45%	The way the NSW Teachers Federation works for the betterment of education in this state?
43%	The concept of promotion on merit?
42%	The physical working environment of your school?
40%	The way the NSW Teachers Federation represents the interests of its members?
40%	The amount of time and effort you put into teaching activities?
38%	The amount of ancillary/ general staff support in your school?
37%	Your school's material resources/equipment?
37%	The way professional associations work for the betterment of education in this state?
37%	The degree of student involvement in decision making at your school?
34%	The amount of recognition you receive for your efforts from parents and the community?
33%	The amount of your current administrative responsibilities?
32%	The degree of involvement of the local community in your school?
31%	Your school's financial resources?
30%	Class sizes in your school?
29%	Your current workload overall?
29%	The concept of local selection/hiring of executive staff?
28%	The concept of local selection/hiring of teaching staff?
27%	The effects of teaching on your personal/family life?
27%	Support structures for teacher welfare in your school?
20%	Professional inservice courses/programs/consultancy/support offered to teachers?
20%	Support structures for student welfare in the DSE?
19%	Your dealings with DSE personnel outside school?
18%	Recent changes to curricula?
18%	Current DSE transfer procedures?
17%	Your current salary?
16%	The way that promotion on merit has occurred in schools/the DSE?
14%	Your opportunities for promotion?
14%	The pace of educational change?
14%	Recent changes to school responsibilities?
10%	Support structures for teacher welfare in the DSE?
06%	The status of teachers in society?
05%	The way that governments work for the betterment of education?
05%	The degree of support provided by the DSE to implement change?
05%	The amount of recognition you receive for your efforts from the DSE?
03%	The image of teachers portrayed in the media?
03%	The community's opinion of the 'official' working hours and holidays in teaching?

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